

## ABSTRACT

A present invention provides a multi-layer capacitor that can be highly downsized and increased in capacity. A present invention provides a method for manufacturing the multi-layer capacitor including a process of forming a dielectric  
5 in the same vacuum chamber, a process of treating a surface of the dielectric, a process of forming a pattern in a metal electrode, a process of forming the metal electrode, and a process of treating a surface of the metal electrode. In this method, etching the dielectric layer flattens a recessed part generated by an electric insulation part.